

REMARKS

Claims 1-9, 13, 14, 18-25, 29 and 30 were rejected under 35 USC 103(a) as being unpatentable over Oh et al (US 2003/0118866 A1). Claims 10-12 and 26-28 were rejected under 35 USC 103(a) as being unpatentable over Oh et al (US 2003/0118866) in view of Chen et al (US 2004/0247937).

By this amendment claims 1, 2 and 18 have been amended and claims 13 and 29 have been cancelled. The subject matter of claim 13 has been incorporated into amended claims 1, 2 and 18. As amended all of these claims require that the dopant produces blue, blue-green, green, green-yellow, or yellow light. Applicants by this amendment have made it clear that the independent claims in this application do not produce substantial components of red light. In fact, in the specification no red dopants are disclosed.

Claim 1 is representative. The result of claim 1 is a substantial improvement in stability while maintaining high efficiency (see Table II, page 27 and Figs. 4 and 5). The table illustrates increased stability while maintaining excellent efficiency in green color. The comparative example 1 (page 24, line 21) without the aminoanthracene is less stable.

The disclosure of Oh et al must be read as a whole. An example showing green luminescence from Alq and a quinacridone dopant is shown in the background of the invention of Oh et al in paragraph 0013. It is clear from the background that Oh et al is implying that the performance of traditional green luminescence layers with a single host is acceptable. In paragraph 0017, Oh et al state that blue and green devices can be realized yet red luminescence of high efficiency is difficult to realize. Thereafter the entire specification is directed solely to improving the efficiency of red devices. Oh et al in the detailed specification describes how to improve the efficiency of red producing devices. Oh et al does not discuss stability nor do they provide any examples which set forth stability factors.

Applicants have discovered that in non-red producing device structures as set forth in all of the independent claims in this application, there is a substantial improvement in stability as discussed above. A clear reading of Oh et al would suggest that if it could be combined with Chen et al the green light

producing dopants of Chen et al would be used only in existing green light producing devices with a single host as in the background example of Oh et al.

The comparative example 1 in Table 2 of the present invention is similar to the example as given in the background of Oh et al discussed above and does not provide adequate stability. Clearly, there is nothing in Oh et al or Chen et al which provides any motivation for the claimed structure in the independent claims in this application that includes “a host and at least one dopant, the host of the luminescent layer is selected to include a solid organic material comprising a mixture of at least two components, wherein the first component is a non-emissive organic compound containing an aminoanthracene, and the second component of the mixture contains an organic compound having a dipole moment larger than that of the first component, wherein the dopant has a bandgap smaller than that of both the first and second components of the host and provides emission centers wherein the dopant produces blue, blue-green, green, green-yellow, or yellow light”. (See amended claim 1) It is noted that claims 9 and 25 call for a coumarin dye. Since the corresponding independent claims do not produce red light, these claims do not cover the red coumarin dyes as taught by Oh et al.

Oh et al teaches away from the present invention and Chen et al can only be combined with Oh et al to produce a traditional green luminescent layer with a single host. Applicants believe that the independent claims in this application each set forth unobvious subject matter and should be allowable. The remaining claims depend on independent claims 1, 2, and 18 and should be allowed along with them.

It is believed that these changes now make the claims clear and definite and, if there are any problems with these changes, Applicants' attorney would appreciate a telephone call.

In view of the foregoing, it is believed none of the references, taken singly or in combination, disclose the claimed invention. Accordingly, this application is believed to be in condition for allowance, the notice of which is respectfully requested.

Respectfully submitted,



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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.